UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/586,800	07/19/2006	Yongxiang Han	42P21623	8784

45209   7590   09/30/2008
INTEL/BSTZ
BLAKELY SOKOLOFF TAYLOR & ZAFMAN LLP
1279 OAKMEAD PARKWAY
SUNNYVALE, CA 94085-4040

EXAMINER
YU, JAE UN

ART UNIT	PAPER NUMBER
2185	

MAIL DATE	DELIVERY MODE
09/30/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _19 July 2006_.
2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.
3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _1-22_ is/are pending in the application.
    4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5)☐ Claim(s) _____ is/are allowed.
6)☒ Claim(s) _1-22_ is/are rejected.
7)☐ Claim(s) _____ is/are objected to.
8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.
10)☒ The drawing(s) filed on _19 July 2006_ is/are: a)☒ accepted or b)☐ objected to by the Examiner.
    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
    a)☐ All   b)☐ Some * c)☐ None of:
      1.☐ Certified copies of the priority documents have been received.
      2.☐ Certified copies of the priority documents have been received in Application No. _____.
      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _7/19/06, 3/18/08_.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

The examiner acknowledges the applicant's submission of 10586800 dated

7/19/2006. At this point claims 1-22 are pending in the instant application.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly
claiming the subject matter which the applicant regards as his invention.

Claim 14 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite

for failing to particularly point out and distinctly claim the subject matter which applicant

regards as the invention.

Claim 14 recites the limitation "the memory" in the last paragraph. There is

insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by
another filed in the United States before the invention by the applicant for patent or (2) a patent
granted on an application for patent by another filed in the United States before the invention by the
applicant for patent, except that an international application filed under the treaty defined in section
351(a) shall have the effects for purposes of this subsection of an application filed in the United States
only if the international application designated the United States and was published under Article 21(2)
of such treaty in the English language.

1.   Claims 1-4, 7-12, 14-16 and 19-21 are rejected under 35 U.S.C. 102(e) as being

anticipated by Chatterjee et al. (US 2005/01829906), referred to as "Chatterjee"

hereinafter.

2.   As per **independent claims 1, 9 and 14**, Chatterjee discloses; "updating an

entry in a memory **[updating the cache memory in the first controller, Paragraph**

12] external to the network processor", 'identifying a microengine of the plurality of

microengines that has stored the entry in a local memory **["mirrored cache memory"**

of the peer controller, Paragraph 12] for the microengine", and "writing information to

a buffer for the identified microengine that indicates the entry has been updated

[buffering update information, Paragraph 12]".

3.   As per **independent claim 19 & dependent claims 2 and 10**, Chatterjee

discloses; "a machine readable medium comprising a plurality of instructions that in

response to being executed result in a network device **[programmed instructions**

executed on a general or special purpose processor, Paragraph 87]", "updating an

entry in a memory **[updating the cache memory in the first controller, Paragraph**

12] external to a network processor of the network device", "identifying each

microengine of the network processor that has cached the entry in a local memory of

the network processor **["mirrored cache memory" of the peer controller, Paragraph**

12]", "storing information to a corresponding buffer for each identified microengine, the

information indicating the entry has been updated in the memory external to the network

processor **[buffering update information, Paragraph 12]**", and "updating the entry

cached in the local memory based upon the information in the corresponding buffer for

each identified microengine **[updating the mirrored cache memory of the peer

controller based upon the information in the buffer, Paragraph 12]**".

4.   As per **claims 3, 11, 15 and 20**, Chatterjee discloses; "reading the entry from the

memory external to the network processor in response to determining, based upon the

information written to the buffer **[buffering update information, Paragraph 12]**, that

the entry has been updated", and "updating the local memory for the microengine based

upon the entry read from the memory external to the network processor **[transmitting

associated cache data from the first controller, Paragraph 12]**".

5.   As per **claims 4, 12, 16 and 21**, Chatterjee discloses; "updating the entry in the

local memory for the microengine in response to determining, based upon the

information written to the buffer **[updating the mirrored cache memory of the peer

controller based upon the information in the buffer, Paragraph 12]**, that the entry

has been updated", and "processing a network packet based upon the entry based in

the local memory for the microengine".

6.   As per **claim 7**, Chatterjee discloses; "determining that all entries in the local

memory for the microengine are invalid based upon the information stored in the buffer

for the microengine **[buffering update ("invalid") information, Paragraph 12]**".

7.   As per **claim 8**, Chatterjee discloses; "determining that all entries in the local

memory for the microengine are outdated based upon the information stored in the

buffer for the microengine **[buffering update ("new") information, Paragraph 12]**".

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

1.   Claims 5, 6, 13, 17, 18 and 22 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Chatterjee et al. (US 2005/01829906) in view of Joy et al. (US

2002/0138717), referred to as "Joy" hereinafter.

2.   As per **claims 5, 6, 13, 17, 18 and 22**, Chatterjee discloses; "update entries of a

corresponding local memory for each microengine based upon information stored in a

corresponding buffer for each microengine **[updating the mirrored cache memory of

the peer controller based upon the information in the buffer, Paragraph 12]**".

Chatterjee does not disclose expressly the "plurality of threads".

Joy discloses a multithread system in the abstract.

Chatterjee and Joy are analogous art because they are from the same field of endeavor of data processing system.

At the time of the invention it would have been obvious to a person of ordinary skill in the art to modify Chatterjee by implementing the multithread system as taught by Joy in the abstract.

The motivation for doing so would have been increased parallelism as expressly taught by Joy in paragraphs 10 and 16.

Conclusion

A.   <u>Claims Rejected in the Application</u>

Claims 1-22 have received a first action on the merits and are subject of a first action non-final.

B.   <u>Direction of Future Remarks</u>

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submission should be clearly labeled "Comments on Statement of Reasons for allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jae Un Yu who is normally available from 9:00 A.M. to

5:30 P.M. Monday thru Friday and can be reached at the following telephone number:

(571) 272-1133.

If attempts to reach the above noted examiner by telephone are unsuccessful,

the Examiner's supervisor, Sanjiv Shah, can be reached at the following telephone

number: (571) 272-4098.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published

applications may be obtained from either Private PAIR or Public PAIR. Status

information for unpublished applications is available through Private PAIR only. For

more information about the PAIR system, see http://pair-direct.uspto.gov. Should you

have questions on access to the Private PAIR system, contact the Electronic Business

Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO

Customer Service Representative or access to the automated information system, call

800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Jae U Yu/

Examiner, Art Unit 2185

9/25/2008

/Sanjiv Shah/

Supervisory Patent Examiner, Art Unit 2185